

REMARKS

This is in response to the Office Action dated December 13, 2005. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

Initially, filed concurrently herewith, is a certified copy of Japanese Patent Application No. 2002-348396. The Examiner is requested to kindly acknowledge the filing of the certified copy of the Japanese Priority Application.

Also, a set of formal drawings is submitted herewith.

Next, by the above amendment, claims 6-9 have been added. Therefore, claims 1-9 are currently pending in the present application. Note that each of the new claims has been carefully drafted to ensure compliance with the requirements of 35 U.S.C. § 112, second paragraph.

Next, on pages 2-4 of the Office Action, original claims 1-5 are rejected as follows:

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke et al. (U.S. Patent No. 6,068,459) in view of Sato (JP 2003-97462); and

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke in view of Sato as applied to claim 1, and further in view of Suefuji et al. (U.S. Patent No. 6,267,572).

The above rejections are respectfully traversed for the following reasons.

In the rejection, the Examiner acknowledges that the Clarke reference does not disclose “different radial gap between the wrap portions of the low-pressure and high-pressure stages compression part.” In an attempt to cure this deficiency, the Examiner applies Sato to teach different radial gaps, and concludes that it would have been obvious “to have utilized the

different radial gap between the wrap portions of the low-pressure and high-pressure stage compression part, as taught by Sato in the Clarke apparatus, since the use thereof would have improved the efficiency of the scroll compressor device.”

However, the Sato reference does not teach different radial gaps at a low pressure stage compression part and a high pressure stage compression part.

Sato discloses an air-cooled scroll compressor including a stationary scroll member 2 having cooling fins 5 and an orbital scroll member 3, which also has cooling fins 10. As shown in Fig. 3 of Sato, a cooling air passage A is formed through the casing 12. The cooling fins 5, 10 are formed so as to extend generally along the direction of the flow of cooling air, which is indicated by the arrows in Fig. 3 (transverse to the axial direction).

In Sato, in the portion of the device that is downstream of the cooling air flow with respect to a compressed air outlet 24 (i.e. on the right side of outlet 24 in Fig. 3), the gaps between orbiting wrap portions 8, 9 and stationary wrap portion 6 (Fig. 2) are made larger than those on the upstream side (i.e., on the left side in Fig. 3). This arrangement is provided in Sato because the thermal expansion of the walls of the wraps at the downstream side is larger than the thermal expansion of the walls on the upstream side. In other words, cooling is less effective on the downstream side (right side). Thus, it is clear that Sato has nothing to do with different radial gaps between wrap portions in a low-pressure stage compression part and wrap portions in a high-pressure stage compression part.

Claim 1 requires, *inter alia*, that the two scroll members in said low-pressure stage compression part have a larger radial gap between the wrap portions in comparison with the

radial gap between the wrap portions of the two scroll members in said high-pressure stage compression part. Also, new independent claim 6 has a similar limitation, but includes a more detailed recitation of the particular structure.

As described above, it is clear that any difference in the gaps in Sato is between wrap portions formed at the same compression part. In other words, Sato does not teach different radial gaps formed between wrap portions of a low pressure stage and warp portions of a high pressure stage. Therefore, since the Sato reference does not disclose the claimed arrangement, it cannot be said that Sato suggests a modification of the Clarke apparatus to include the different radial gaps. Thus, it is submitted that claims 1 and 6 are clearly allowable over the collective teachings of the Clarke and Sato references.

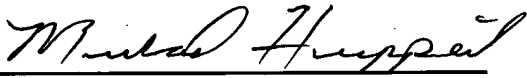
Further, the Suefuji reference has been reviewed and it is clear that this reference does not teach the different radial gaps required in claims 1 and 6. Thus, it is submitted that the teachings of Suefuji, in combination with teachings of Clarke and Sato, do not disclose or suggest Applicant's invention as defined in independent claims 1 and 6. Note that claims 2-5 and 7-9 depend, directly or indirectly, from one of claims 1 or 6 and are therefore allowable at least by virtue of their dependencies.

In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

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March 13, 2006